# IDEA

## PHASE 3 TECHNOLOGY DEMONSTRATION HIGHLIGHT

**COMPANY**
ThermaXX

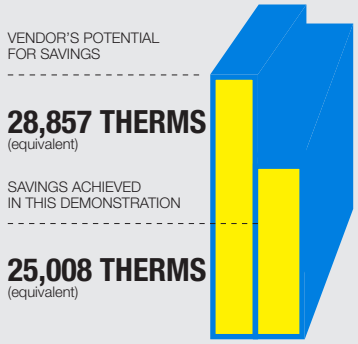
**TECHNOLOGY**
Smart Jackets

**DEMONSTRATION SITE(S)**
i. Manhattan Municipal Building, 1 Centre St, New York
ii. Manhattan Supreme Court, 60 Centre St, New York
iii. Health Building, 125 Worth St, New York
iv. John Ericsson Middle School 126,
424 Leonard St, Brooklyn

**DEMONSTRATION PERIOD**
November 2016 – January 2018

SYSTEM(S) INVOLVED
**HEATING/DOMESTIC HOT WATER**

TYPE OF SAVINGS GENERATED
**DISTRICT STEAM, NATURAL GAS**




**SAVINGS**

**PROJECTED PAYBACK PERIOD:**
2 years (1.7 with incentives)

### Technology Description

ThermaXX smart jackets are custom-fabricated, removable, smart insulation covers with built-in wireless temperature sensors, designed for odd-shaped fittings and devices that are typically left uninsulated (e.g. valves, steam traps, etc.). The optional temperature sensors are programmed to take interval readings to determine the amount of energy being saved by the insulation relative to the bare horizontal cylindrical fitting. Each jacket is tagged with a ThermaXX "Slate" smart tag that allows quick access to detailed information about the component within (using any smartphone), and allows authorized users to add notes and track maintenance activity. In this way, ThermaXX helps keep steam system energy where it's needed and provides easy access for clients to the information associated with each jacket.

### Optimum Facility Characteristics

- Buildings with high steam consumption; either direct Con Edison steam or via fuel-fired boilers.
- Uninsulated steam components and traps.
- Active on-site staff with periodic maintenance activities.
- Functional steam traps and a well-maintained steam system.

### Demonstration Results

The vendor calculated a combined Btu savings equivalent to 28,857 therms of natural gas for a 14-month period for all the demonstration sites. CUNY measurement and verification estimated a combined Btu savings equivalent to 25,008 therms. The projected payback period is 2 years.

### Recommendations for Implementation

- A small number of sensors in installed jackets remained offline or did not show readings for some time-periods; ThermaXX has enhanced their monitoring of data to address these issues more proactively. Note that the sensors utilized for measurement, verification and fault detection are both optional and subscription based.
- Steam traps should be inspected and repaired prior to installing this technology.
- Steam traps that are insulated should be inspected regularly to verify that they are operating properly.
- Jackets that have sensors may be set to alert facility operations personnel operations if a jacket has been removed.
- An inspection protocol should be included in the facility's preventative maintenance plan, to regularly verify that jackets are in place and functional.
- As the public school has a natural gas account, National Grid provided incentive funds for this energy conservation measure, which further improved the project payback period.

www.thermaxxjackets.com/